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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,752

03/21/2006

Syuuji Nakamura

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11/16/2007

NATH & ASSOCIATES

112 South West Street

Alexandria, VA 22314

EXAMINER

CHANG, JENNIFER F

ART UNIT

PAPER NUMBER

4158

MAIL DATE

DELIVERY MODE

11/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/572,752	Applicant(s) NAKAMURA ET AL.	
	Examiner Jennifer F. Chang	Art Unit 4158	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/21/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-4 are presented for examination.

Specification

2. The disclosure is objected to because of the following informalities:
 - a. “electronic component....is appropriately be changed (page 5, second paragraph, line 2)” contains a grammatical error.
 - b. “insulative,” used throughout the application is not a proper English word and has not been defined in the specification. The examiner has interpreted the phrase to read “insulator-covered” instead of “insulative covered”
 - c. “energization,” used on page 8, third paragraph, line 5, and in Claim 4 is not a proper English word, and has not been defined in the specification.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orthmann et al. (US 5,396,698).
5. As to Claim 1, Orthmann teaches an antenna apparatus comprising
an antenna having a core around which an insulator-covered conductor (12, Fig. 2) is wound, wherein

the core comprises a magnetic core (16, Fig. 2) and a wiring layer (10a, 10b, Fig. 2), and

the magnetic core is made of flexible soft magnetic material ("ferromagnetic material," abstract).

Orthmann does not explicitly teach that the magnetic core and the wiring layer are laminated onto each other. However, lamination is a well-known practice to combine a magnetic layer with a wiring layer to one of ordinary skill in the art at the time of the invention. Therefore, all the claimed elements of the invention were known in the prior art and one skilled in the art could have combined these elements as claimed by known methods and with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

6. As to Claim 2, Orthmann teaches the wiring layer is formed on a printed board ("printed circuit board manufacturing methods," col. 2, lines 59-62).

7. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orthmann in view of Masaharu (JP-08166446). Orthmann teaches the antenna substantially as claimed (see paragraph 5) but fails to disclose the core is provided with an extending portion which outwardly extends from a coiled section around which the insulator covered conductor is wound, and an electronic component is mounted on the extending portion [Claim 3] and the antenna further comprising an electricity control section which permits and prohibits energization to the wiring layer depending upon an operation state of the antenna [Claim 4]. As to Claim 3, Masaharu teaches mounting an

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electronic component (P, Fig. 1) on an extended portion of the core (1, Fig. 1). As to Claim 4, Masaharu further teaches an electricity control section which permits or prohibits energization to the wiring layer depending upon an operation state of the antenna ("circuit for controlling transmission/receiving of signal, etc.," abstract).

Therefore, all the claimed elements were known in the prior art, and it would have been obvious to one of ordinary skill in the art to modify the antenna taught by Orthmann by providing an extended portion of the magnetic core on which to mount an electronic device, and to further provide an electricity control on the apparatus in order to simplify the assembly work and the number of components needed in the apparatus.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer F. Chang whose telephone number is (571) 270-3831. The examiner can normally be reached on Monday through Thursday 7:30AM - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on (571) 272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer F Chang/
Examiner, Art Unit 4158

/Walter Benson/
Supervisory Patent Examiner, Art Unit 4158